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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,259	02/07/2001	Cristobal Guillermo dos Remedios	13388	4496

7590 10/28/2005

Scully, Scott, Murphy & Presser
400 Garden City Plaza
Garden City, NY 11530

EXAMINER

CHEU, CHANGHWA J

ART UNIT	PAPER NUMBER
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1641

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/778,259	REMEDIOS ET AL.	
	Examiner	Art Unit	
	Jacob Cheu	1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's amendment filed on 8/24/2005 has been received and entered into record and considered.

The following information provided in the amendment affects the instant application:

1. Claim 1-37 are cancelled.
2. Claim 38-45 are added to the instant application. Currently, claims 38-45 are under examination.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 38, 40-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Richardson et al. (US 4257774).

Richardson et al. teach a method of detecting toxicant, e.g. carcinogen or mutagen, in a test sample (Col. 1, line 41-45). Richardson et al. teach contacting sample containing the toxicant with a nucleic acid, and measuring the inhibition of binding of a dye, e.g. ethidium bromide to said nucleic acid, wherein the inhibition of binding, e.g. comparing the amount of binding, is indicative of the presence of the toxicant (Col. 3, line 30-50; Claims 1-3).

With respect to claim 40, Richardson et al. teach that the method can be modified, for instance the nucleic acid can be added prior to addition of dye (Col. 3, line 32-36).

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With respect to claim 42, the toxicant tested by Richardson et al. can be in a variety of choices, such as organic compound, e.g. antitumor drugs (Col. 1, line 42-52).

With respect to claim 43, Richardson et al. teach that the dye used for the assay can be of acridine orange, ethidium bromide (See Example I-V).

3. Claim 39 is rejected under 35 U.S.C. 102(b) as being anticipated by Weis et al. (US 5561042).

Weis et al. teach a method to detect the presence of a target molecule in a test sample. Weis et al. teach that contacting the sample containing the target molecule with a nucleic acid molecule after the nucleic acid molecule is bound to a dye, e.g. ethidium bromide, and detect dissociation of the dye from the nucleic acid molecule as indicative of the presence of the target molecule (See Example 2, line 46-55).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claims 44-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Richardson or Weis et al. in view of Gold (US 6242246).

Both Richardson and Weis et al. references have been discussed but are silent in teaching use of a solid support for immobilization of DNA for analysis.

Gold et al. teach screening for DNA binding agents by immobilizing DNA on solid support and measuring the change of dye, e.g. fluorescence, for indicative of the presence of the binding agent (Col. 13, line 25-345; Figure 4-5).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to have provided both Richardson or Weis et al. with the solid support for immobilization of DNA for better efficiency since it is well-known for immobilization of molecule on a solid support to increase sensitivity of the assay and the methodology employed by Gold et al. in also in an analogous field, e.g. measuring change of fluoresce dye for indicative of altering binding.

With respect to the materials for solid support (claims 44-45), Gold et al. teach a variety of choices, including glass, polystyrene, gold or silicon (Col. 6, line 42-50).

Response to Applicant's Arguments

7. Applicant's arguments with respect to claims 1, 3-7, 11, 34-37 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

8. No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Cheu whose telephone number is 571-272-0814. The examiner can normally be reached on 9:00-5:00.

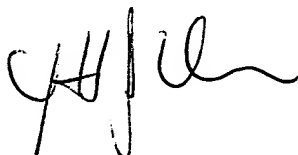
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jacob Cheu

Examiner

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October 20, 2005


LONG V. LE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

10/25/05